

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 88-062

SITE CLEANUP REQUIREMENTS FOR:

Brandenburg, Staedler & Moore and
Brandenburg-Butters Associates
San Jose
Santa Clara County

Phil Wood, doing business as
Phil Wood and Company
153 West Julian Street
San Jose
Santa Clara County

James L. Murphy
San Jose
Santa Clara County

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. Brandenburg, Staedler & Moore and Brandenburg-Butters Associates (Brandenburg-Butters) owns the property located at 153 West Julian Street, San Jose (site) and leases the property to Phil Wood, doing business as Phil Wood and Company (Phil Wood). James L. Murphy owned the property from 1969 to 1985. Phil Wood has operated a small-scale specialty bicycle parts manufacturing and distributing business at the site since 1978. Brandenburg-Butters, James L. Murphy and Phil Wood are hereinafter referred to as dischargers.
2. Two underground storage tanks, one 1000 gallon tank and one 300 gallon tank, were reportedly installed at the site by a former owner between 1944 and 1969 for storing gasoline. From 1978 to 1984, Phil Wood used the 1000 gallon tank to store 1,1,1-trichloroethane (TCA) for cleaning metal parts. The two underground storage tanks were excavated and removed in 1985 because they were no longer being used.
3. Soil samples collected from beneath the 1000 gallon tank during excavation contained 5600 milligrams per kilogram (mg/kg) TCA. Subsequent soil samples collected from a boring directly beneath the former tank contained 10,000 mg/kg TCA at a depth of 16 ft. and 38 mg/kg TCA at a depth of 18 ft. Based on these results, 162 cubic yards of soil from beneath the former tank location were excavated to a depth of 19 ft.
4. Hydrogeologic investigations completed to date have defined the horizontal and vertical extent of groundwater pollution.

Nine shallow aquifer monitoring wells, six intermediate aquifer monitoring wells and one deep aquifer monitoring well have been installed. TCA has been detected in the shallow aquifer groundwater at concentrations as high as 760 ppm. In addition, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, total petroleum hydrocarbons and various other volatile organic compounds have been detected in the groundwater beneath the site.

5. The geology beneath the site consists of an interbedded sequence of alluvial, estuarine, and shallow bay deposits and are predominantly comprised of clays and silts, with intermixed sand and gravelly sand beds. The sand beds occur at depths of approximately 30, 50, and 75 feet and are referred to as the shallow, intermediate and deeper water-bearing zones, respectively.
6. Brandenburg-Butters has proposed to implement soil and groundwater interim remedial action for the site including soil-vapor and groundwater extraction and treatment. Soil vapors will be extracted from four vapor extraction wells. Groundwater will be extracted from the shallow aquifer from two groundwater extraction wells and treated prior to discharge to the storm drain system.
7. Phil Wood is a discharger because of the release of chemicals that have resulted from his use of the underground storage tanks. Brandenburg-Butters is a discharger because they are the current owner of the property where the release has occurred. James L. Murphy is a discharger because he was the owner of the property where the release has occurred during the period of time when the TCA tank was in operation.
8. Progress on investigation and cleanup has been achieved because of the actions of Brandenburg-Butters and continued progress would not be possible without their continued involvement.
9. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives and beneficial uses for South San Francisco Bay and contiguous surface and groundwaters.
10. The existing and potential beneficial uses of the intermediate and deeper groundwater underlying and adjacent to the facility include:
 - a. Industrial process water supply
 - b. Industrial service water supply
 - c. Municipal and Domestic water supply

d. Agricultural water supply

10. The dischargers have caused or permitted, and threaten to cause or permit waste to be discharged or deposited where it is or probably will be discharged to waters of the State and creates or threatens to create a condition of pollution or nuisance.
11. This action is an order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15321 of the Resources Agency Guidelines.
12. Onsite and offsite interim containment and cleanup measures need to be implemented to alleviate the threat to the environment posed by the continued migration of pollutants and to provide a substantive technical basis for designing and evaluating the effectiveness of final cleanup alternatives.
13. The Board has notified the dischargers and interested agencies and persons of its intent under California Water Code Section 13304 to prescribe Site Cleanup Requirements for the discharge and has provided them with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.
14. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the dischargers shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous materials in a manner which will degrade water quality or adversely affect the beneficial uses of the waters of the State is prohibited.
2. Further significant migration of pollutants through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of pollutants are prohibited.

B. SPECIFICATIONS

1. The storage, handling, treatment or disposal of soil or

groundwater containing pollutants shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

2. The dischargers shall conduct monitoring activities as needed to verify interpretations of the current local hydrogeologic conditions, and the lateral and vertical extent of soil and groundwater pollution. Should monitoring results show evidence of pollutant migration, additional pollutant characterization of pollutant extent may be required.

C. PROVISIONS

1. The dischargers shall submit to the Board acceptable monitoring program reports containing results of work performed according to the attached program as prescribed by the Board's Executive Officer.
2. The dischargers shall comply with Prohibitions A.1., A.2., and A.3., and Specifications B.1. and B.2. above, in accordance with the following time schedule and tasks:

COMPLETION DATE/TASK

- a. 1) COMPLETION DATE: July 31, 1988

TASK: COMPLETION OF INTERIM REMEDIAL ACTIONS: Submit a technical report acceptable to the Executive Officer documenting completion of the construction and start up of the soil-vapor and groundwater extraction, treatment and disposal systems.

- b. 1) COMPLETION DATE: January 31, 1989

TASK: a) EVALUATE INTERIM HYDRAULIC CONTAINMENT: Submit a technical report acceptable to the Executive Officer which evaluates the effectiveness of the interim onsite hydraulic containment system. Such an evaluation shall include, but need not be limited to, an estimation of the flow capture zone of the extraction wells, establishment of the cones of depression by field measurements, and presentation of chemical monitoring data.

b) MODIFICATION TO INTERIM REMEDIAL ACTIONS: Specific modifications to the system and an implementation time schedule shall be

proposed in the event that the hydraulic control system is demonstrated not to be effective in containing and removing the pollutants.

- 2) COMPLETION DATE: May 31, 1989

TASK: COMPLETION OF MODIFICATIONS TO INTERIM REMEDIAL ACTIONS: Submit a technical report acceptable to the Executive Officer documenting completion of the necessary tasks identified in the technical report submitted for Task 2.b.1)b).

- c. 1) COMPLETION DATE: Prior to vacuum extraction system mass removal rate decreasing to 10% of its original rate, but not later than June 30, 1990.

TASK: EVALUATE SOIL INTERIM REMEDIAL ACTIONS AND PROPOSE MODIFICATIONS: Submit a technical report acceptable to the Executive Officer which evaluates the effectiveness of the soil interim remedial actions. Specific modifications to the system and an implementation time schedule shall be proposed.

- 2) COMPLETION DATE: Three months after submittal of technical report submitted for task 2.c.1).

TASK: COMPLETION OF MODIFICATIONS TO SOIL INTERIM REMEDIAL ACTIONS: Submit a technical report acceptable to the Executive Officer documenting completion of the necessary tasks identified in the technical report submitted for Task 2.c.1).

- d. 1). COMPLETION DATE: June 30, 1991

TASK: PROPOSED FINAL CLEANUP OBJECTIVES AND ACTIONS: Submit a technical report acceptable to the Executive Officer containing the results of the remedial investigation; an evaluation of the installed interim remedial measures; a feasibility study evaluating alternative final remedial measures; the recommended measures necessary to achieve final cleanup objectives; the recommended measures necessary to document the completion

of soil remediation; and the tasks and time schedule necessary to implement the recommended final remedial measures.

3. The submittal of technical reports evaluating immediate, interim and final remedial measures will include a projection of the cost, effectiveness, benefits, and impact on public health, welfare, and environment of each alternative measure. The remedial investigation and feasibility study shall consider the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300); Section 25356.1 (c) of the California Health and Safety Code; CERCLA guidance documents with reference to Remedial Investigation, Feasibility Studies, and Removal Actions; the State Water Resources Control Board's Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California"; and the Regional Board staff's document entitled, "Information to be Included in Proposals and Resultant Sampling Reports for Groundwater and Associated Soil Investigations."
4. If the dischargers are delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order, the dischargers shall promptly notify the Executive Officer and the Board may consider revision to this Order.
5. Technical reports on compliance with the Prohibitions, Specifications, and Provisions of this Order shall be submitted monthly to the Board on May 15, 1988 and June 15, 1988 covering the previous month. Such reports shall consist of a letter report that, (1) summarizes work completed since submittal of the previous report, and work projected to be completed by the time of the next report, (2) identifies any obstacles which may threaten compliance with the schedule of this Order and what actions are being taken to overcome these obstacles, and (3) includes, in the event of non-compliance with Provision C.2. or any other Specification or Provision of this Order, written notification which clarifies the reasons for non-compliance and which proposes specific measures and a schedule to achieve compliance. This written notification shall identify work not completed that was projected for completion, and shall identify the impact of non-compliance on achieving compliance with the remaining requirements of this Order.

On a quarterly basis, commencing with the report due October 31, 1988 for the period July through September

1988, the quarterly reports shall include, but need not be limited to, updated water table and piezometric surface maps for all affected water bearing zones, cross-sectional geological maps describing the hydrogeological setting of the site (if new geological data becomes available), and appropriately scaled and detailed base maps showing the location of all monitoring wells and extraction wells, and identifying adjacent facilities and structures. The report shall also include the quantities of specific pollutants being removed by the vacuum extraction system and by the groundwater extraction system.

7. All hydrogeological plans, specifications, reports, and documents shall be signed by or stamped with the seal of a registered geologist, engineering geologist or professional engineer.
8. All samples shall be analyzed by State certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review.
9. The dischargers shall maintain in good working order, and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.
10. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order, shall be provided to the following agencies:
 - a. Santa Clara Valley Water District
 - b. Santa Clara County Health Department
 - c. City of San Jose
 - d. State Department of Health Services/TSCD

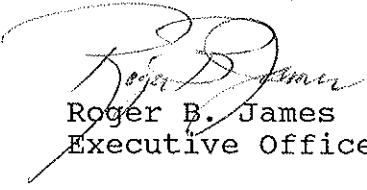
The Executive Officer may additionally require copies of correspondence, reports and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order to be provided to the U.S. Environmental Protection Agency, Region IX, and to a local repository for public use.

11. The dischargers shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:
 - a. Entry upon premises in which any pollution sources exist, or may potentially exist, or in which any

required records are kept, which are relevant to this Order.

- b. Access to copy any records required to be kept under the terms and conditions of this Order.
 - c. Inspection of any monitoring equipment or methodology implemented in response to this Order.
 - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.
12. The dischargers shall file a report on any changes in site occupancy and ownership associated with the facility described in this Order.
13. If any hazardous substance is discharged in or on any waters of the state, or discharged and deposited where it is, or probably will be discharged in or on any waters of the state, the discharger shall report such discharge to this Regional Board, at (415) 464-1255 on weekdays during office hours from 8 a.m. to 5 p.m., and to the Office of Emergency Services at (800) 852-7550 during non-business hours. A written report shall be filed with the Regional Board within five (5) working days and shall contain information relative to: the nature of waste or pollutant, quantity involved, duration of incident, cause of spill, Spill Prevention, Control, and Countermeasure Plan (SPCC) in effect, if any, estimated size of affected area, nature of effect, corrective measures that have been taken or planned, and a schedule of these activities, and persons/agencies notified.
14. The Board will review this Order periodically and may revise the requirements when necessary.

I, Roger B. James, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 20, 1988.


Roger B. James
Executive Officer

Attachments: Self-Monitoring Plan
Site Map

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

Brandenburg, Staedler & Moore and
Brandenburg-Butters Associates
San Jose, Santa Clara County

Phil Wood, doing business as
Phil Wood and Company
153 West Julian Street
San Jose, Santa Clara County

James L. Murphy
San Jose, Santa Clara County

Order No. 88-062

CONSISTS OF

PART A, Dec. 1986
As Modified by SBTD, 1/23/87
With Appendices A-E

and

PART B, adopted
April 20, 1988

PART B

Brandenburg, Staedler & Moore and
Brandenburg-Butters Associates
San Jose
Santa Clara County

Phil Wood, doing business as
Phil Wood and Company
153 West Julian Street
San Jose
Santa Clara County

James L. Murphy
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I. DESCRIPTION OF SAMPLING STATIONS

All existing and future shallow, intermediate and deep aquifer monitoring and extraction wells as appropriate. See Table 1 (attached) for list of monitoring wells.

II. MISCELLANEOUS REPORTING. None.

III. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis shall be that given in Table 1 (attached).

IV. MODIFICATIONS TO PART A.

A. Delete Sections D, E, F.2, G.4.b, G.4.e, and G.4.g.

B. The first paragraph of Section G.4 shall be changed to read as follows:

Written reports shall be filed with the Regional Board regularly for each calendar quarter (unless otherwise specified) and filed no later than the last day of the following month. The reports shall be comprised of the following:

C. Insert G.4.d.5) to read as follows:

The EPA Method 8240 analyses shall include tentative identification and semi-quantified concentrations of non-priority pollutant substances of greatest apparent concentration, to be followed by identification and confirmation of peaks of greatest concentration.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with site cleanup requirements established in Regional Board Order No. 88-062.
2. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer or Regional Board.
3. Was adopted by the Board on April 20, 1988.

April 22, 1988
DATE



ROGER B. JAMES
Executive Officer

Attachments: Table I

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

SAMPLING -->	WC-1, WC-3, LF-1	WC-2, LF-4, LF-5	WC-1
STATION -->	LF-2, LF-3, LF-7	LF-6, LF-9	LF-7
	LF-8, LF-10	LF-12, LF-1C	
	LF-11, LF-13		
TYPE OF SAMPLE	G	G	G
ANALYSES			
EPA Method 8010/8020 w/Freon 113 Xylenes	Q		
EPA Method 8240	1/Y*	1/Y	
Total Petroleum Hydrocarbons			Q

LEGEND FOR TABLE 1

G = grab sample

Q = quarterly, once in March, June, September and December

1/Y = once per year

* EPA 8010/8020 not required for months when EPA 8240 is performed.

